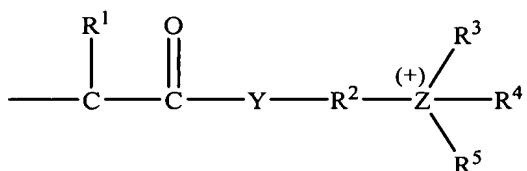


Amendments to the Claims:

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1-12. (Canceled)

13. (Currently Amended) A sea water-insoluble polymer comprising quaternary ammonium groups and/or quaternary phosphonium groups bound to ~~the~~a backbone of the polymer ~~consisting of~~ or comprising a group of formula:



wherein

Y is O or NH, Z is N or P, R¹ is a hydrogen atom or a C₁-C₄ alkyl group, preferably hydrogen or a C₁-C₂ alkyl group.

R^2 is a C_2 or a C_3 - C_{12} divalent hydrocarbon group, preferably a C_2 or a C_3 - C_8 divalent hydrocarbon group, more preferably a C_2 or a C_3 - C_4 divalent hydrocarbon group.

R^3 and R^4 independently represent a C₁-C₆ alkyl group, ~~preferably methyl, or~~
~~an optionally substituted phenyl group,~~

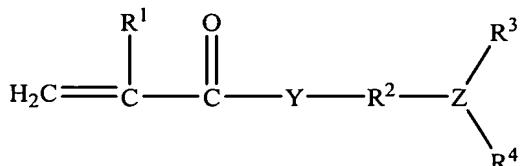
R^5 is a C_1 - C_5 alkyl group, preferably methyl.

said quaternary ammonium groups and/or quaternary phosphonium groups being neutralised by counter-ions that consist of the anionic residue of an acid having an aliphatic, aromatic, or alkaryl hydrocarbon group comprising 6 or more carbon atoms atoms;

said counter-ions being capable of hydrolyzing, dissociating or exchanging with sea water species to leave a polymer framework that is soluble in sea water.

14. (Currently Amended) Process for the preparation of a sea water-insoluble polymer comprising quaternary ammonium groups and/or quaternary phosphonium groups bound to the backbone of the polymer, comprising the steps of:

–Quaternisation of quaternizing an amine- or phosphine-functional monomer



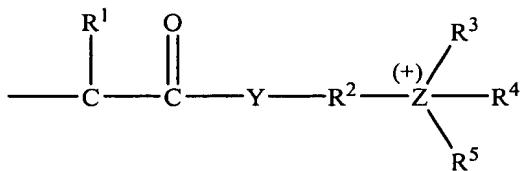
wherein Y is O or NH, Z is N or P, R¹ is a hydrogen atom or a C₁-C₄ alkyl group, R² is a C₂ or a C₃-C₁₂ alkylene group, R³ and R⁴ independently represent a C₁-C₆ alkylene group or an optionally substituted phenyl group.

—Replacement of the replacing a counter-ion of the quaternised ammonium or phosphonium monomer by a carboxylate group derived from an acid having an aliphatic, aromatic, or alkaryl hydrocarbon group comprising 6 or more carbon atoms, and

Polymerisation of polymerizing at least one type of long-chain acid-capped quaternary ammonium monomer and/or at least one type of long-chain, acid-capped quaternary phosphonium-functional monomer-monomer; .

wherein said counter-ions being capable of hydrolyzing, dissociating or exchanging with sea water species to leave a polymer framework that is soluble in sea water.

15. (Currently Amended) Anti-fouling coating compositions comprising an ingredient having marine biocidal properties and a sea water-insoluble polymer comprising quaternary ammonium groups and/or quaternary phosphonium groups bound to the a backbone of the polymer consisting of or comprising a group of formula:



wherein

Y is O or NH, Z is N or P, R¹ is a hydrogen atom or a C₁-C₄ alkyl group, preferably hydrogen or a C₁-C₂ alkyl group; R² is a C₂ or a C₃-C₁₂ divalent hydrocarbon group, preferably a C₂ or a C₃-C₈ divalent hydrocarbon group, more preferably a C₂ or a C₃-C₄ divalent hydrocarbon group. R³ and R⁴ independently represent a C₁-C₆ alkyl group, preferably methyl, or an optionally substituted phenyl group; R⁵ is a C₁-C₅ alkyl group, preferably methyl.

said quaternary ammonium groups and/or quaternary phosphonium groups being neutralised by counter-ions that consist of the anionic residue of an acid having an aliphatic, aromatic, or alkaryl hydrocarbon group comprising 6 or more carbon atoms; said counter-ions being capable of hydrolyzing, dissociating or exchanging with sea water species to leave a polymer framework that is soluble in sea water.

16. (Previously Presented) Coating composition according to claim 15, characterised in that the counter-ions comprise 6 to 50 carbon atoms.

17. (Previously Presented) Coating composition according to claim 15, characterised in that the coating composition additionally comprises a rosin material.

18. (Currently Amended) Coating composition according to claim 17,
characterised in that the coating composition has a binder comprising a blend of a rosin
material and an auxiliary film-forming resin in a weight ratio of 20:80 to 95:5, the auxiliary
film-forming resin comprising 20-100% by weight of the total weight of the auxiliary film-
forming resin of a quaternary ammonium- and/or quaternary phosphonium-functional film-

forming polymer (A), the quaternised groups of which are blocked by groups capable of hydrolysing, dissociating or exchanging with seawater species to leave a polymer soluble in seawater, the blocking groups being anionic residues of acids having an aliphatic, aromatic, or alkaryl hydrocarbon group comprising 6 or more carbon atoms, and 80-20%80-0% by weight of the total weight of the auxiliary film-forming resin of a non-hydrolysing, water-insoluble film-forming polymer (B).

19. (Previously Presented) Coating composition according to claim 18, characterised in that the binder comprises a blend of the rosin material and the auxiliary film-forming resin in a weight ratio of 55:45 to 80:20.

20. (Previously Presented) Coating composition according to claim 18, characterised in that the auxiliary film-forming resin comprises 30-90% by weight of the film-forming polymer (A) capable of hydrolysing or dissociating to a polymer soluble in sea water and 70-10% by weight of the non-hydrolysing, water-insoluble film-forming polymer (B).

21. (Previously Presented) Coating composition according to claim 18, characterised in that the non-hydrolysing, water-insoluble film-forming polymer (B) is an acrylate ester polymer or a vinyl ether polymer.

22. (Previously Presented) Coating composition according to claim 15, characterised in that the binder includes a non-polymeric plasticiser present at up to 50% by weight based on the total binder polymer.

23. (Currently Amended) Method of coating man-made structures immersed in water ~~such as boat hulls, buoys, drilling platforms, oil production rigs, and pipes~~, comprising coating said structures with the composition of claim 15.